LG

WASHING MACHINE
SERVICE MANUAL

CAUTION

READ THIS MANUAL CAREFULLY TO DIAGNOSE TROUBLES CORRECTLY BEFORE OFFERING SERVICE.

MODEL : WD-1020W / WD-1040W
WD-1021W / WD-1041W

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1. FEATURES

LOW TANGLE AND LOW DAMAGE.
Drum washing machine have uniform washing without damage and tangle by rubbing and beating.

ADOPT FUZZY LOGIC.
FUZZY denote that MICOM can set the optimal washing process by sensing laundry amount and temperature of ambience and water.

LOW-NOISE.
Low-noise washing and spinning is accomplished by adopting electronic motor control.

LIGHT-WEIGHT.
By reducing the weight of system dramatically to 70kg, it is easy to handle.

SPEEDY COURSE FOR TIME SAVING.

RESERVATION. (DELAYED START)
If necessary, the reservation time for washing can be set up by controlling the 「TIME DELAY」 button.

EASY CHECK OF THE WATER TEMPERATURE IN WASHING.
Water temperature is displayed by pressing the selection 「WATER TEMP」 button on washing.

WHEN THE SETTING TEMPERATURE IS OVER 60℃.
Washed water is gradually decreased by repeating WATER INLET-RINSE-DRAIN to prevent the laundry from damage by water temperature sudden change.

POWER SHOWER RINSE.
The front of door sprays out the water to remove the remaining detergent with just a little amount water.

PREFERRED TEMPERATURE SELECTION.
Selected temperature from cold to heating(4 steps).

2. INTRODUCTION OF NEW TECHNOLOGY

2-1.SPECIFICATION AND FUNCTION

ITEM		WD-1020W / WD-1040W	WD-1021W/ / WD-1041W
POWER SUPPLY		AC 220-240V / 50Hz	AC 220-240V / 50Hz
PRODUCT WEIGHT		70kg	
ELECTRICITY CONSUMPTION	WASHING	190W	
	SPIN(normal)	300W	
	DRAIN MOTOR	32W	
	WASH HEATER	2500W	2000W
REVOLUTION SPEED	WASH	50rpm	
	SPIN	650/800/1000rpm	
OPERATION WATER PRESSURE		0.3-10kgf/㎠ (30-1000kPa)	
CONTROL TYPE		Electronic	
WASH CAPACITY		7.2kg	7.0kg
		WOOL(2kg), LINGERIE(2kg), BLANKET(2.5kg)	WOOL(2kg), SYNTHETIC(7.0kg), BLANKET(2.5kg)
DIMENSION		600mm(W) × 600mm(D) × 850mm(H)	
WASH PROGRAM		NORMAL,HEATING,SPEEDY,WOOL,LINGERIE(SYNTHETIC),BLANKET	
RINSE TIME		1,2,3,4,5,6	
SPINNING NOISE(dBA)		52 (at 800rpm)	
DOOR SWITCH TYPE		Automatic type by pressing the button	
WATER LEVEL		9 Step(by sensor)	
RESERVATION		From 3 hour to 19 hour	
SENSING OF THE LAUNDRY AMOUNT		Adopt	
NEURO - FUZZY		Adopt	
DISPLAY THE REMAINING TIME		Adopt	
DIAGNOSIS ERROR		7 ITEMS	
POWER AUTO OFF		Adopt	

2-2.SENSING OF THE LAUNDRY AMOUNT

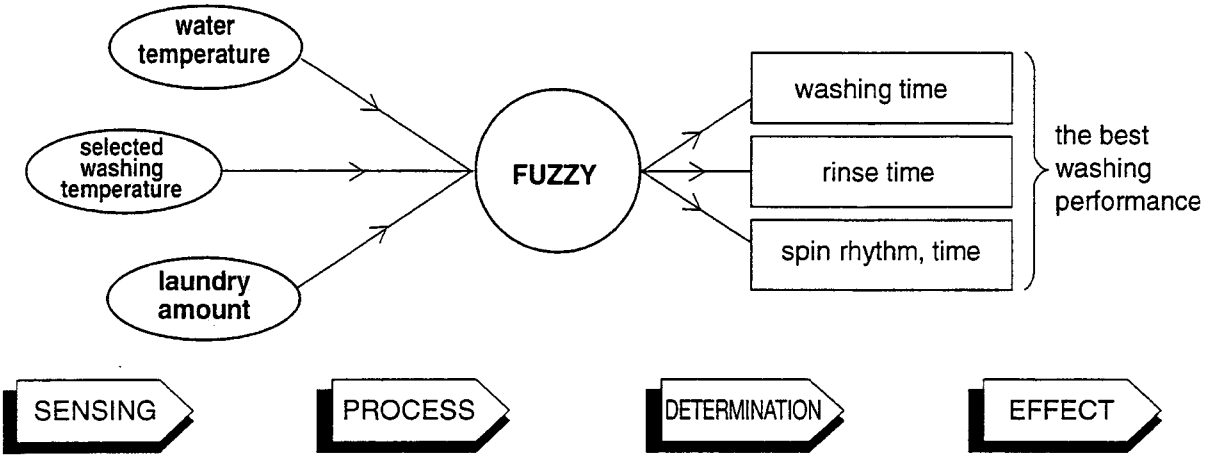
- PRINCIPLE : After first water supply, the laundry absorbs the water by revolution of drum, which causes the decrease of water level.
  Micom senses decreased water level and water is supplied more and recognizes the amount of the laundry by calculating the times of complementary water supply.
  In case of lots of laundry, the times of water supply will be increased.
- Criteria :

AMOUNT OF LAUNDRY	TIMES OF COMPLEMENTARY WATER SUPPLY
below 2.0kg	1~2 times
above 4.5kg	3 times or more

※ The times of water supply depends on amount of laundry, material of laundry and water temperature etc.

2-3.DETERMINE WASHING TIME BY FUZZY

To get the best washing performance optimal time is determined by sensing of water temperature, selected washing temperature and laundry amount.



2-4.WATER LEVEL CONTROL

- This model adopt the sensor pressure which can sense the water level in the tub.
- When the water level reaches to the preset level water supply is stopped, then proceed washing program.
- In case of spinning, the senses pressure sensor water level until the water reaches certain presetted level.

2-5.CONTROL OF DOOR OPEN

- The door can be opened by pressing [DOOR OPEN] button after finishing program.
- When the revolution of drum is stopped and in case water level is below level 2, door can be opened by pressing the [DOOR OPEN]button.
- If there is no power, the door can be opened by revolving the door opener.
  (If the water level is high, first drain the water by pulling out the hose cap)

2-6.IN CASE OF NOT OPEN THE DOOR

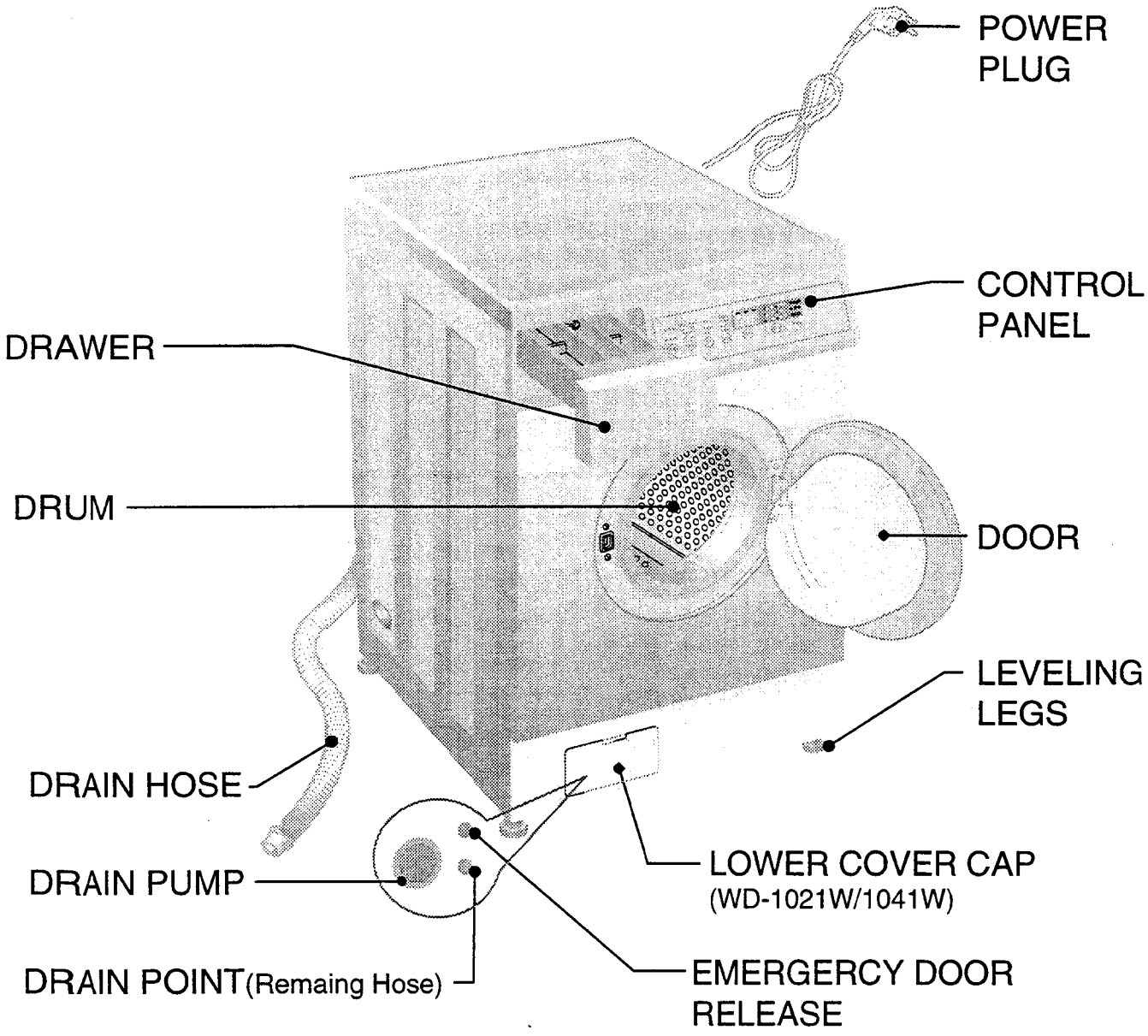
- Power off or unpluged.
- Operating program.
- 「DOOR LOCK」light turn on.
- Motor spinning.

2-7.IN CASE OF 「DOOR LOCK」LIGHT TURNS ON

- Water level frequency below 23.2kHz.
- In the tub water temperature above 45℃

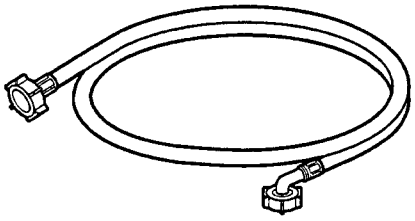
3. NAME AND FUNTION OF EACH PART

3-1.NAME OF EACH PART

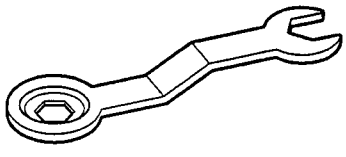


■ ACCESSORIES

INLET HOSE(1EA)



SPANNER



3-2 FUNCTION OF EACH BUTTON

Shower rinse

- When selecting the rinse once or twice, shower rinse is not performed.
- When selecting the rinse 3 times, the first rinse is shower rinse.
- When selecting the rinse more 4 times, the first and second is shower rinse.
- When selecting only rinse, no shower rinse regardless of the number times of rinse.

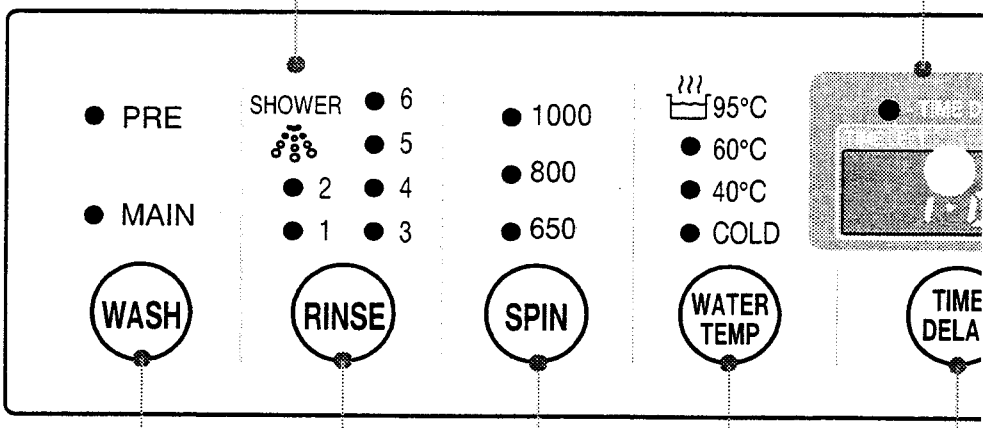
Displaying abnormal operation

- Display the remaining time(Hour : Minute)
- The remaining time is reduced by the washing cycle.
- Error lamp is indicated the abnormal operation.

  (OFE, dOE, HE, PE)
- Display the reservation time.

For manual wash, rinse and spin

- Use these buttons to change washing method, rinse number, spinning.
- No operation when lamp turns off.
- Prewashing is available for normal, heating program.



How to select water temperature

- Press the button to select water temperature.
- The water temperature is selected [40°C ' 60°C ' COLD] during normal program.
- 95°C is selected only for heating program.
- Pressing the button when operating the washer, the present temperature is displayed.

How to use delayed washing

- Press the button when reservation washing is needed.
- If the button is pressed,[3:00] is displayed, and maximum [19:00] hours can be reserved.
- Whenever pressing it, one hour increases.
- [Time delay] the power button to cancel it.
- [Time delay] means the time required from the present to the completion of washing.

How to select a program

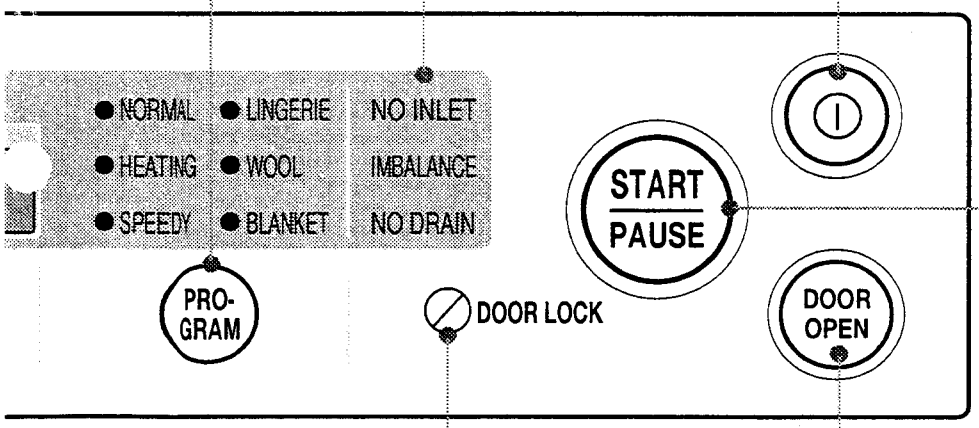
- 6 programs can be selected by the kind of the laundry.
- If the power button is pressed, the normal program is set automatically.
- By pressing the button, [HEATING ' SPEEDY ' BLANKET ' WOOL ' LINGERIE ' NORMAL] can be selected.

Error display

- The display blinks if there is an error
- NO INLET : Trouble with water supply
- IMBALANCE : The laundry is tilted to one side
- NO DRAIN : If the drain pump filter is clogged

Power button

- By pressing the button, it repeats turning on and off.
- Press the button to cancel the reservation.
- It turns off in 8 sec. after the program is finished.



Start/Pause button

- Use the button to start or stop
- The power turns off automatically in 4 minutes after the button is pressed.
- Press the button to change the program.

Door lock display

- It shows whether the door can be open or not on the program.
- If the light turn off can be open the door.

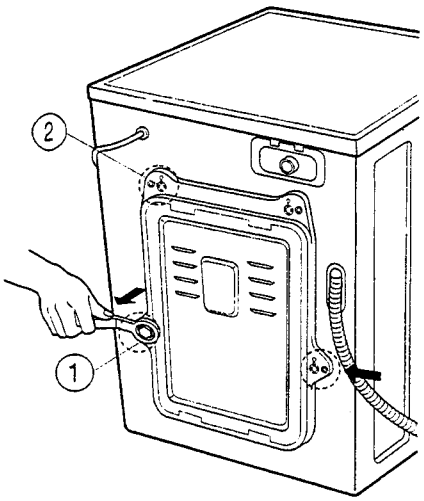
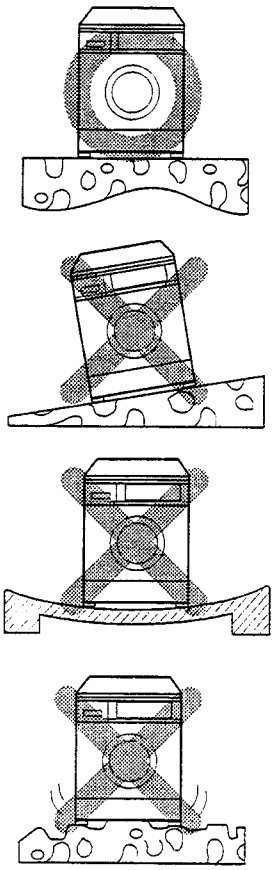
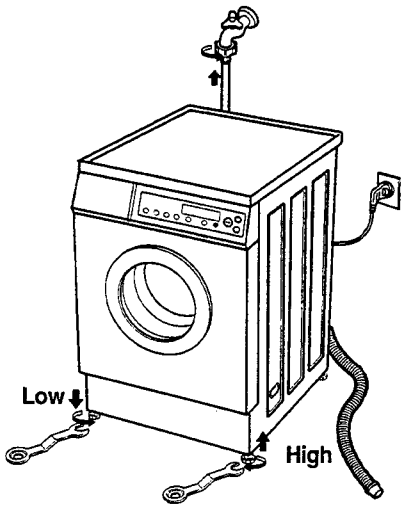
How to open the door

- Use the button to add the laundry.
- Press the button, the door is open.
- It is available while the power is plugged in.

4. SERVICE PROCEDURE

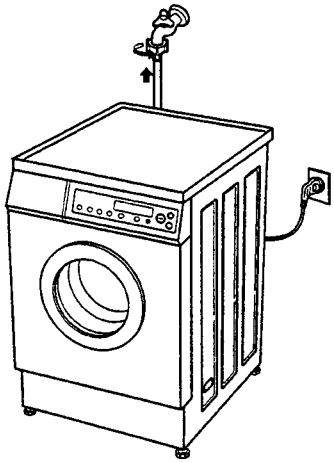
[1] Before servicing ask troubles of customers
[2] Check the adjustment(power supply is 220-240V, remove the transit bolts....)
[3] Check the troubles referring to the trouble shooting.
[4] Decide the step of service referring to disassembly and instructions.
[5] And then, service and repair.
[6] After servicing, operate the appliance whether it works O·K or NOT.

■ STANDARD INSTALLATION
The appliance should be installed as follows.

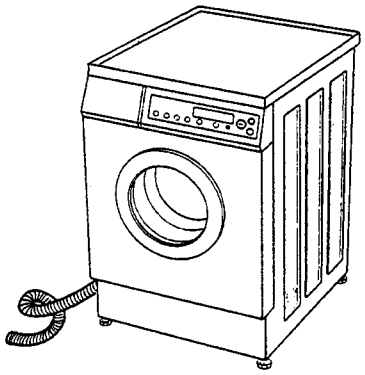
REMOVE THE TRANSIT BOLTS	INSTALL THE APPLIANCE ON FLAT AND FIRM SURFACE	ADJUST THE HORIZONTAL
• Remove the transit bolts (4EA:①)with supplied spanner. • Keep the transit bolts and spanner for future use. • Push and fix the rear cap(②) 		• Turn the leveling feet to set the appliance horizontally.  • The appliance goes up by rotating the feet clockwise direction. • The appliance come down by rotating the feet counter clockwise direction.

■ HOW TO CONNECT INLET HOSE

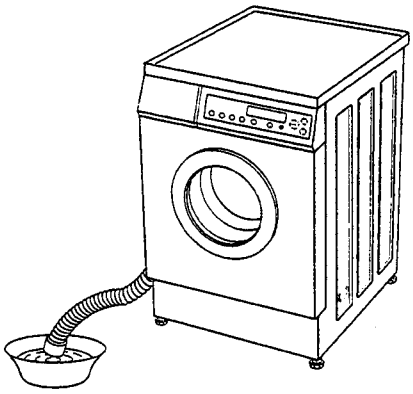
- Check that the rubber packing is inside of the valve connector.
- Connect the inlet hose firmly to prevent leak.



■ CONNECT DRAIN HOSE



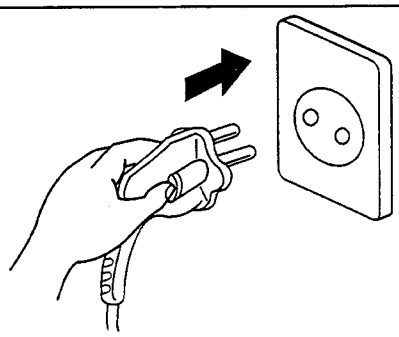
· Make sure that the hose is not twisted.



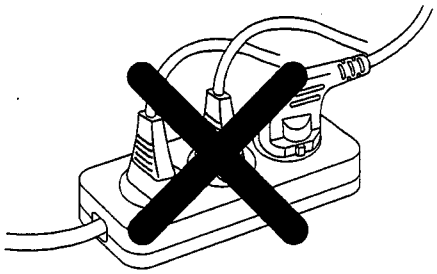
· Avoid submerging the end of the hose.

※ The drain hose should be placed under 85㎝ from the floor.

■ CONNECT POWER PLUG



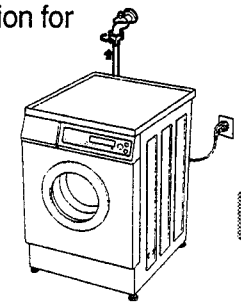
· Connect the power plug to the wall outlet.



· Avoid connecting several electric devices, It may be the cause of the fire.

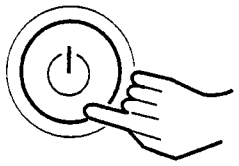
* DETERMINE SVC PROCESS ACCORDING TO THE RESULT OF TROUBLE DIAGNOSIS

1 Preparation for washing.



- Connect the power plug to the outlet.
- Connect the inlet hose.

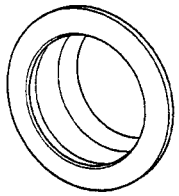
2 Press the power button.



- In case of NORMAL program.

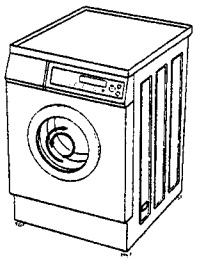
3 Press the START/PAUSE button.

4 Check the water supply.



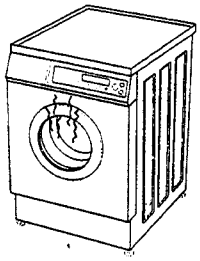
- Check shower because the water supplied on the door at first.

5 Check automatic reverse turn.



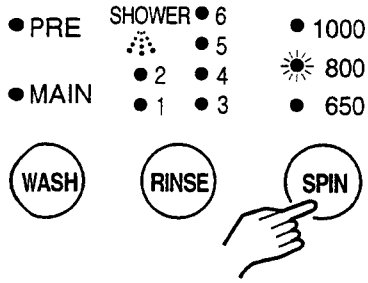
- Check if the drum rotate to clockwise and counterclockwise.

6 Check the water heating.



- Press the button 「WATER TEMP」 and then the present temperature in displayed.

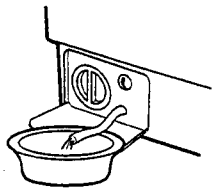
7 Check the drain and spin



8 Power off

- After power off, press the [DOOR OPEN] button to check the door open.

9 Water removal



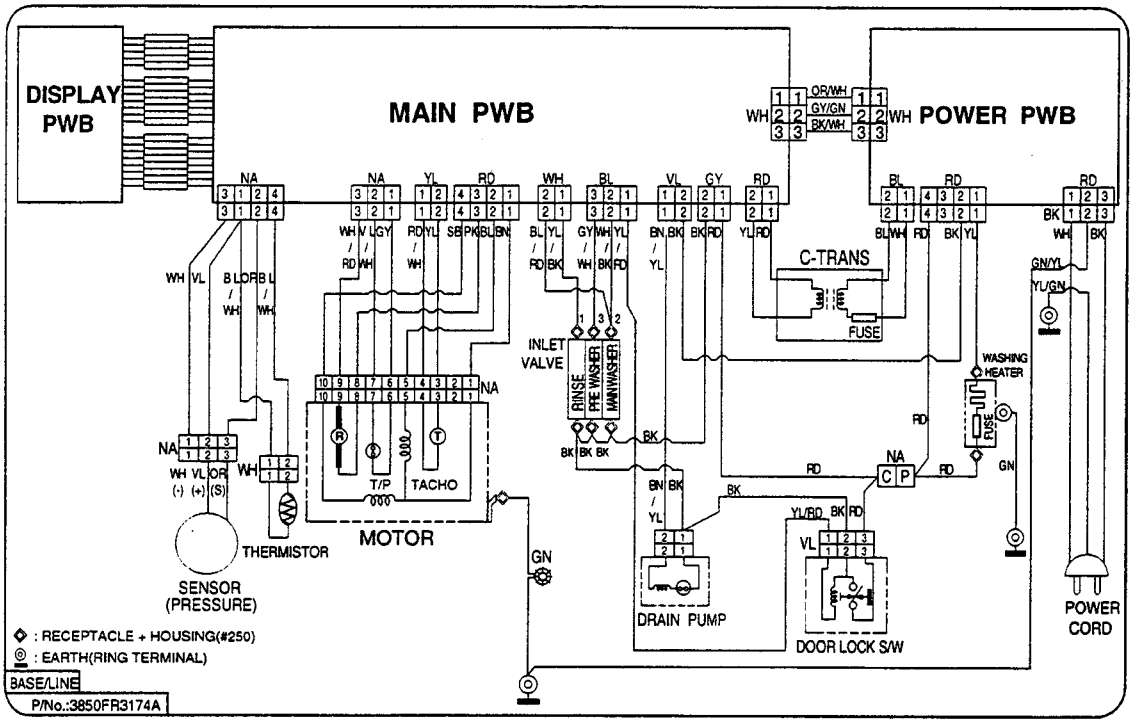
- If SVC is needed, during check and remove the remaining water by pulling out the hose cap.

- Trouble shooting refer to (6.ERROR DISPLAY)
- Assemble and disassemble refer to (9.Disassembly Instructions)

5. WIRING DIAGRAM AND PROGRAM CHART

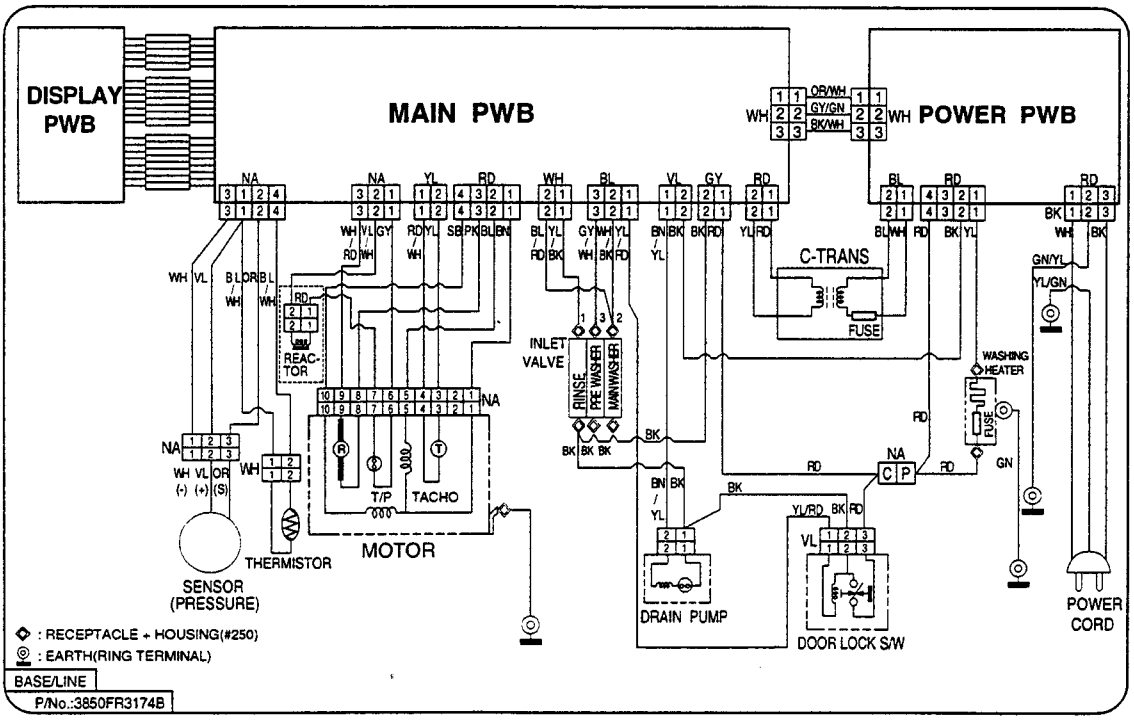
5-1.WIRING DIAGRAM

(WD-1020W / 1040W / 1021W / 1041W)



(WD-1021W / 1041W)

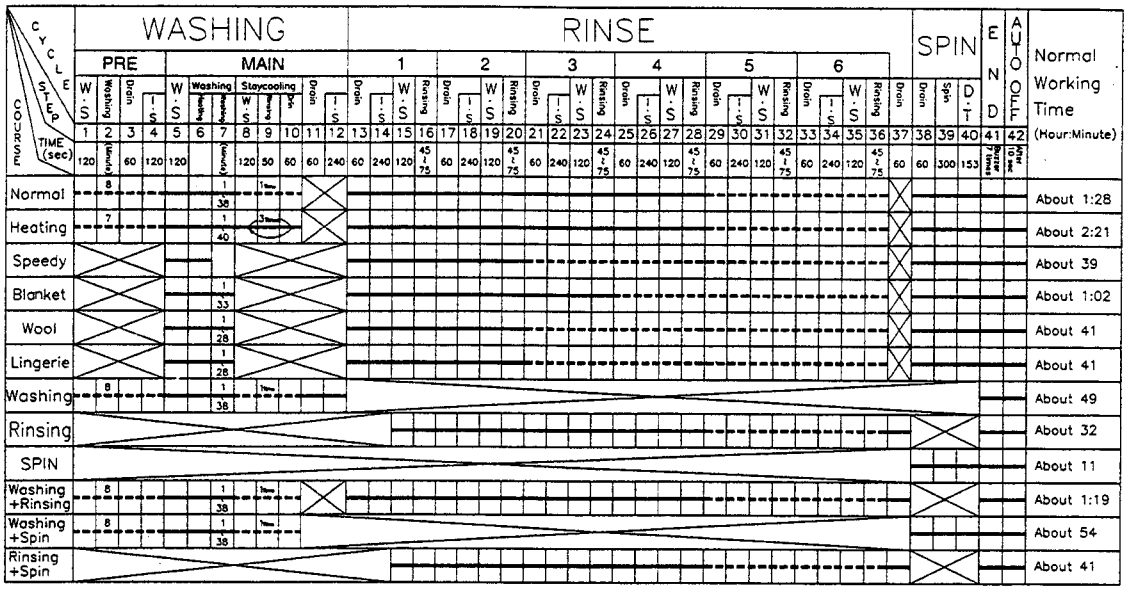
*STANDARDS : SEMKO.



5-2.PROGRAM CHART

(WD-1020W / 1040W)

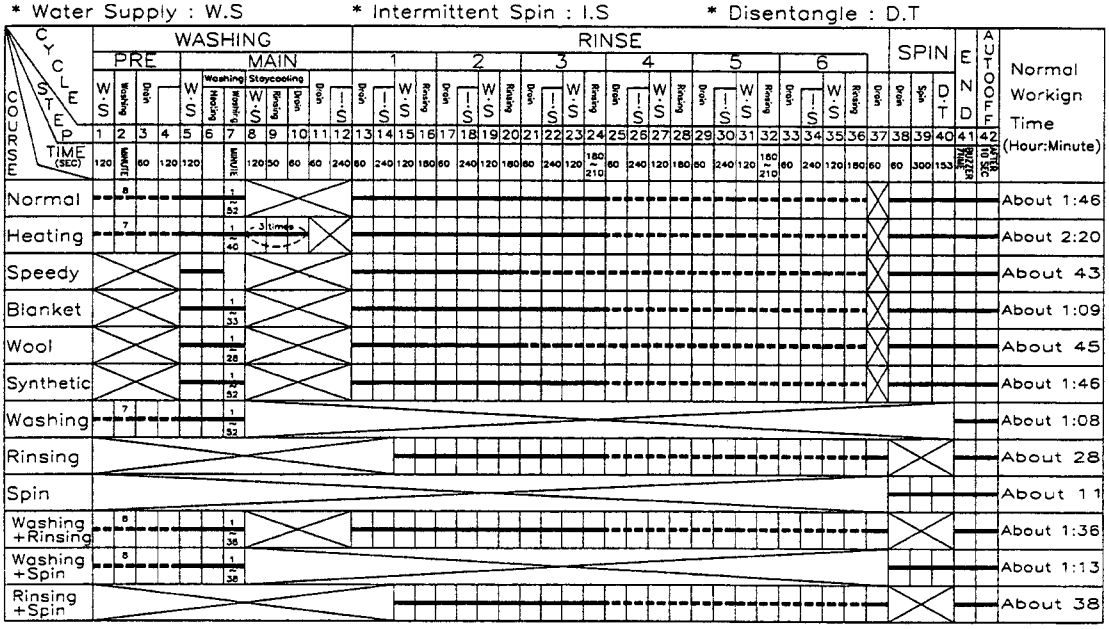
* Water Supply : W.S * Intermittent Spin : I.S *Disentangle : D.T



* ——— Basic Cycle
  ----- Optional Cycle
* Pree-Setting Time:Water Supply – 120sec.
  Drain – 60sec.
* ~ Time for varies as the temperature or the amount of laundry
* For wool or lingerie course only 650rpm is operated.
* Shower Rinsing ; Rinsing time is 20sec.
* Basic time unit is minute in washing chart.
* The actual program time can be varied with the load amount, water temperature or ambient tenperature.

(WD-1021W / 1041W)

* Water Supply : W.S * Intermittent Spin : I.S * Disentangle : D.T



* ——— Basic Cycle
* ------ Optional Cycle
* Pre-Setting Time:Water Supply – 120 sec.
  Drain – 60 sec.
* ~ Time for varies as the temperature or the amount of laundry
* For wool or Synthetic course only 650rpm is operated.
* Shower Rinsing ; Rinsing time is 20 sec.
* Basic time unit is minute in washing chart.
* The actual program time can be varied with the load amount, water temperature or ambient temperature.

6. ERROR DISPLAY

- If you press the [START/PAUSE] button in error condition, an error display change into pause status [but, except " **PE** "]
- If you unresolved 「 **PE**」,「 **HE**」after 20sec. auto off and displayed error. But, after 4 minutes displayed the other error on auto off and displayed error.

	ERROR	SYMPTOM	발 생 원 인
1	WATER INLET ERROR	\ | / — NO INLET— / | \	o No reached to the water level(2 level)within 4 minutes. o After water supplied, not reached to the normal level within 25 minutes.
2	DRAIN ERROR	\ | / —NO DRAIN— / | \	o Not fully drained away within 5 minutes.
3	OVER FLOW ERROR		o Water is over flow(over 9 level).
4	SENSOR PRESSURE S/W ERROR		o The sensor pressure S/W is out of order.
5	DOOR OPEN ERROR		o The door does not open in spite of pressing the 「DOOR OPEN」button. o In case of operating the reservation function or the other function during door opened. Close the door, then the error display is resolved.
6	HEATING ERROR		o The thermistor is out of order. o In case of broken of heater or thermal fuse.
7	IMBALANCE ERROR	\ | / — IMBALANCE — / | \	o The appliance is tilted. o Laundry is gatherd to one side.

7. TEST MODE (Program for svc check)

7-1.Before SVC checking

- Be careful of electric shock or disconnecting the parts while trouble shooting.
- Voltage of each terminal in AC 220-240V and DC while applying an electric current.

7-2.How to use this program

① Pressing [RINSE], and [SPIN] button simultaneously.

② Power supply ON with pressing upper two button. then buzzer sound twice.

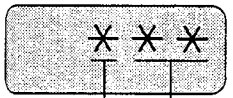
③ Press the [START/PAUSE] button as follows.

(Press the [START/PAUSE] button more 4 times until stop spinning)

Pressing number of [START/PAUSE] button	Checking Point	Display Status
None	All LED on	88:88
1 time	Counterclockwise spin(left)	Motor rpm(About 6~14)
2 times	Low speed Spin	Motor rpm(About 98~110)
3 times	High speed Spin	Motor rpm(About 105~162)
4 times	Inlet valve for pre-wash operation	Water level frequency(25~65)
5 times	Inlet valve for shower-rinse operation	Water level frequency(25~65)
6 times	Inlet valve for main-wash operation	Water level frequency
7 times	Clockwise spin(right)	Motor rpm(About 5)
8 times	A Heater is in operation for 3 sec.	Heater Temperature
9 times	Draining pump operation	Water level frequency
10 times	Auto off operation	
Pressing [DOOR OPEN] button	Door Open operation	

7-3.How to know the water level frequency

* Press the [WASH] and [RINSE] button simultaneously.



The last two digits means water level frequency(10^{-1} KHz)

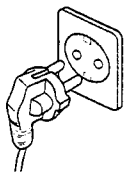
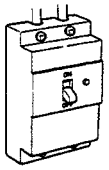
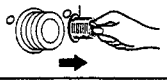
The first digit means the number of water inlet.

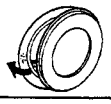
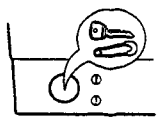
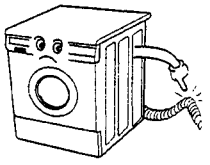
ex) 641 : Water level frequency = 241 × 10^{-1} KHz ('2' is ommitted)

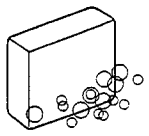
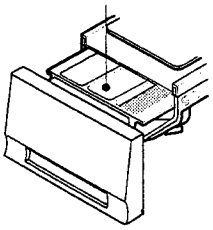
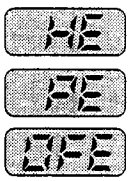
└► Water is supplied 6 times.

8. ERROR DIAGNOSIS AND CHEK LIST

8-1.Diagnosis and answer for abnormal operation

SYMPTOM	GUIDE FOR SERVICE CALL
NO POWER	Is the power plug connected firmly? YES Power failure? or Breaker closed? NO Visit to check  
Water inlet trouble \ | / — NO INLET— / | \	Is "NO INLET" displayed? YES Is the tap opened? YES Isn't the tap frozen? NO Isn't the water supply shut-off? NO Isn't filter in the inlet valve clogged with foreign material? YES Clean the filter of inlet valve NO Visit to check \ | / — NO INLET— / | \ 

SYMPTOM	GUIDE FOR SERVICE CALL
◦ Door open trouble ◦ Error displayed on the program 	When the door opened, Is the started or on the program 「TIME DELAY」? → YES → Close the door  NO Didn't you press the [DOOR OPEN] button when water remained in the tub? YES → 1. Press the [START/PAUSE] button to stop the appliance. 2. Drain the water by spin. 3. Open the door by pressing the [DOOR OPEN] button. NO Isn't door opened in spite of pressing the [DOOR OPEN] button NO Visit to check
◦ Drain Trouble \ | / —NO DRAIN— / | \	Is "NO DRAIN" displayed? \ | / —NO DRAIN— / | \ YES Is the foreign material clogged in the drain pump such as pin or coins? → YES → Clean up the filter.  NO Isn't drain hose twisted or frozen?  NO Visit to check

SYMPTOM	GUIDE FOR SERVICE CALL
◦ Lather overflow from the appliance. (In this condition, wash and spin do not operate normally)	Is Low-lathering detergent for the durm washing machine used? YES Is the proper amount of detergent used as our advice? YES Recommend to reduce the using amount of detergent. * This appliance adopt the automatic lather sensing program which it is operated at lather overflown condition to reduce it by repeating 「drain→water inlet→drain」: If water temperature selected at 95℃, it is downed to 60℃ automatically. * If the bubbles will be much in the spinning, remove bubbles by repeating short drain and water supply.  LOW LATHERING DETERGENT
◦ No effect of softner	Is softener put in the correct compartment of drawer? YES Has the drawer closed during wash? YES Is the softener cap clogged? YES Explain how to use softener Compartment for softener 
◦ Error displayed as follows	Visit to check 

8-2.Fault diagnosis and Trouble shooting

CAUTION

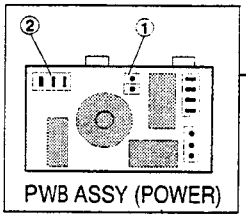
1. Be careful of electric shock or disconnecting the parts while trouble shooting.
2. First of all, check the connection of each part terminal with wiring diagram.
3. Voltage of each terminal is AC 220-240V while applying an electric current (except secondary part of the transformer and sensor pressure)

NO POWER

When measuring the voltage of the outlet, is the voltage AC 220-240V?

NO → Check the fuse?

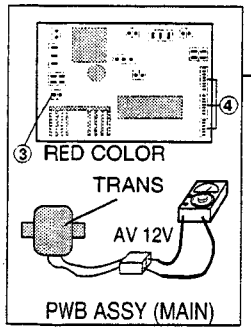
YES ↓



When measuring the voltage of blue connector of the PWB assy (Power) is the voltage AC 220-240V?

NO → Replace PWB assy (Power)

YES ↓



When the red connector pull out from the PWB assy(Main) Is the voltage AC 12V or more?

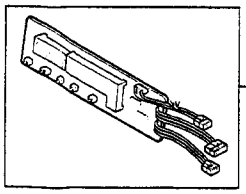
NO → Replace transformer (Controller) (6170FR2027E)

YES ↓

Is ④ connector disconnected or disassembled?

YES → Reconnect and repair connector.

NO ↓



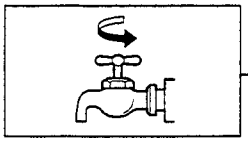
Is wire of the PWB assy(Display) disconnected?

NO → Replace PWB assy(Main)

YES ↓

Replace PWB assy(Display) (6871FC2272A)

NO WATER SUPPLY

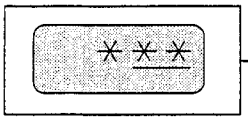


Isn' t the water supply shut-off?

NO

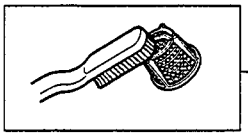
Is tap opened? — NO → Open the tap.

YES



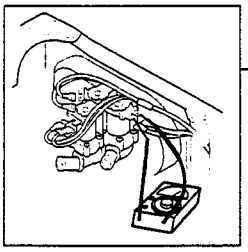
Is the water level frequency below 40 when pressing 「WASH」 「RINSE」 button at the same time on the program. — YES → Check the chamber(Air) and the tube clogged with impurity.

NO



Isn' t the inlet valve filter clogged with impurity? — YES → Clean the filter.

NO

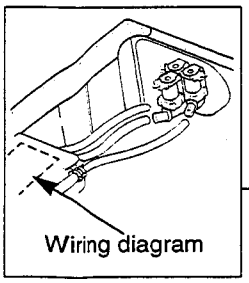


Is resistance of the inlet valve connector between 2 to 8 kΩ ? — NO → Replace the inlet valve.

YES

Is the PWB assy(Main)?
※ Review 7. TEST MODE and measure the voltage AC 220-240V of each connector? — NO → Replace the PWB assy (Main).

DETERGENT DOES NOT SUPPLY

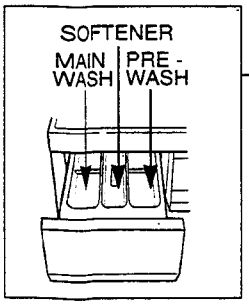


Is the water supplied? — NO → Refer to solution 「NO INLET」

YES

Is the connection of hoses between inlet valve and dispenser the same as the wiring? — NO → Check the wiring on the dispenser.

YES

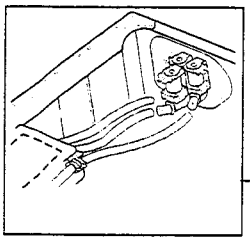


Is detergent put in the correct compartment of the drawer? — NO → Put the detergent in the correct position
PRE+MAIN
MAIN WASH
● : DETERGENT

YES

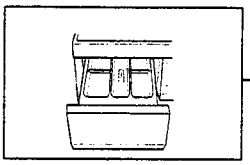
Isn' t hard to detergent? — YES → Clean the drawer.

SOFTENER DOES NOT SUPPLY

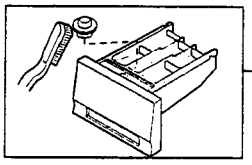


Is the water supplied?
- NO → Review 「NO WATER SUPPLY」
- YES ↓

Is the connection of hoses between inlet valve and dispenser the same as the wiring?
- NO → Check the wiring on the dispenser.
- YES ↓

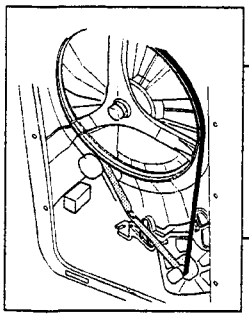


Is softener put in the correct compartment of drawer?
- NO → Put in the correctly.
- YES ↓



Is the softner cap clogged?
- YES → Clean the cap and drawer.

ABNORMAL SOUND

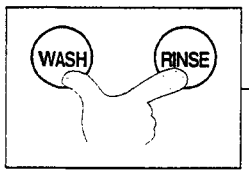


Is the pulley bolt released?
- YES → Fix the bolt tightly.
- NO ↓

Is the belt worn?
- YES → Replace the V-belt (4400FR3116A)
- NO ↓

Is the friction noise from the motor?
- YES → Replace the motor.

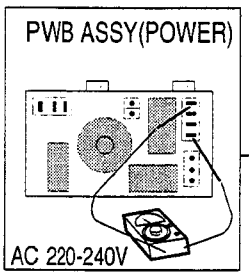
HEATING WITHOUT WATER



When pressing [WASH] and [RINSE] button at the same time after dranining, is the water level frequency 52 or more?
When pressing [WASH], [RINSE] buttons at the same time while wash, is the water level frequency between 20~40?

NO → Replace the sensor (pressure)

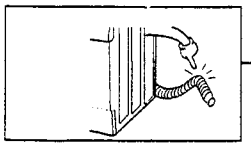
YES



Is the connector of PWB assy(Power) disconnected or disassembled?

NO → Replace the PWB assy (Main)

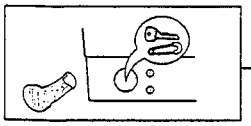
DRAIN MALFUNCTIONING



Is the drain hose twisted or frozen?

YES → Repair drain hose

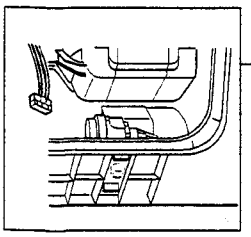
NO



Is the impeller of drain pump clogged?

YES → Remove foreign material.

NO



Is the connector disconnected, disassembled?

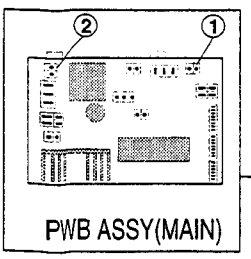
YES → Reconnect or repair the connector

NO

Is the coil of drain pump cut-off?
(resistance of coil is 90~160 Ω)

YES → Replace the pump assy

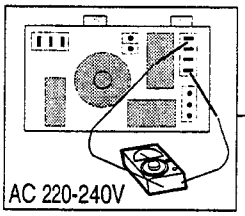
NO



When checking voltage between connectors (①, ②)on spinning, is the voltage AC 220-240V as the figure?

NO → Replace the PWB assy (Main)

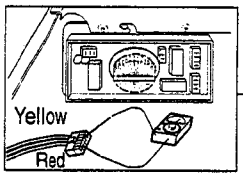
WASH HEATER TROUBLE



When checking the voltage between connector the PWB assy(Power) during washing.
Is the voltage AC 220-240V?

NO → Replace the PWB assy (Power)

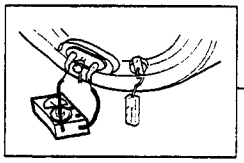
YES ↓



After power off, is the resistance of wire connector 10 to 30Ω?

YES → Normal

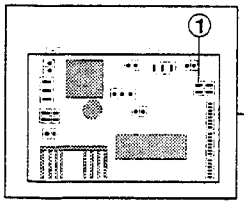
NO ↓



After power off the heater terminal is disconnected, is the resistance 10 to 30Ω?

NO → Replace the heater assy

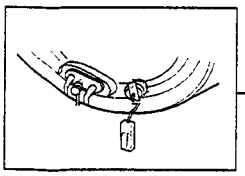
HEATING CONTINUOUSLY ABOVE THE SETTING WATER TEMPERATURE



When disconnect the connector on the PWB assy (Main), is the resistance of the wire connectors (Blue/ White) between 2.5kΩ to 180kΩ (105℃~0℃)?

NO → Replace the thermistor (6322FR2046B)

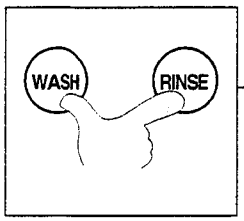
YES ↓



When checking thermistor on the tub cover, is the thermistor unfixed above 2mm from the rubber?

YES → Push the thermistor tightly to the rubber.

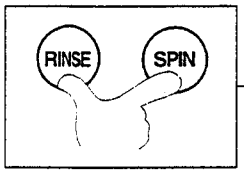
SPIN TROUBLE



Check on the spinning, is the frequency of the water level 48 or more. The frequency can be checked by pressing the [WASH] and [RINSE] buttons at the same time on the program.

NO → Check the sensor (Pressure) or hose (Sensor). If the problem is on the sensor or the hose, replace the sensor or the hose.

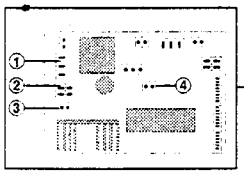
YES ↓



When pressing 「WASH」,「RINSE」 and 「POWER」 buttons at the same time after power off, press the [START/PAUSE]button 2 times, is the drum low speed spin?

YES → Normal

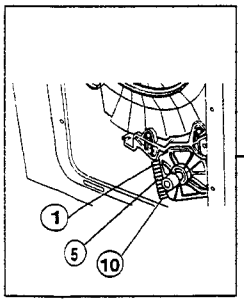
NO ↓



Is it disconnected, or disassembled? (Natural:3pin(①),Red:4pin(②),Red:2pin(③), Yellow:2pin(④))

YES → Correct the connetor.

NO ↓

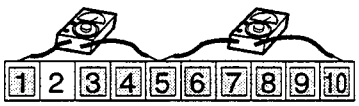


Check the motor connector, is the resistance of the terminal same as the figure?

Resistance of terminal: ①~⑤:0.5~1.0 Ω

⑤~⑩:1.5~2.5 Ω

MOTOR TERMINAL



NO → Replace the motor assy. (4681FR1194A)

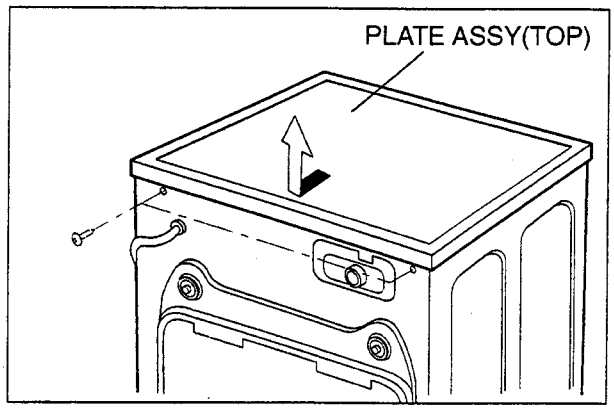
YES ↓

Replace the PWB assy (Main)

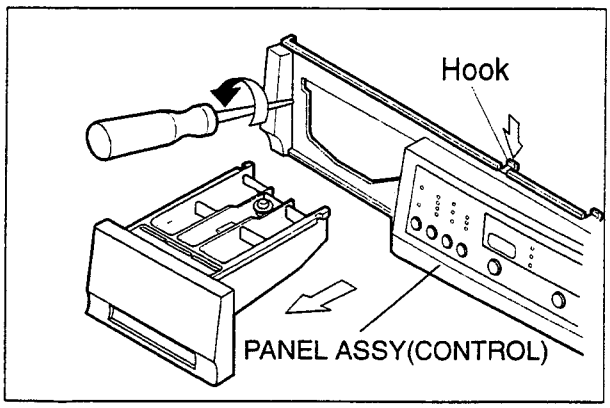
9. DISASSEMBLY INSTRUCTIONS

* Disassemble and repair the parts after pulling out power cord from the outlet

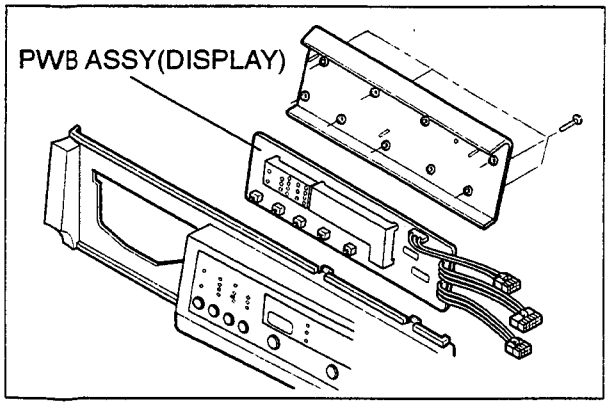
CONTROL PANEL



① Two screws are unscrewed on the top plate.
② The plate assy(Top) is pulled back and then upward to arrow direction.
③ The cover(Inner) is disassembled.

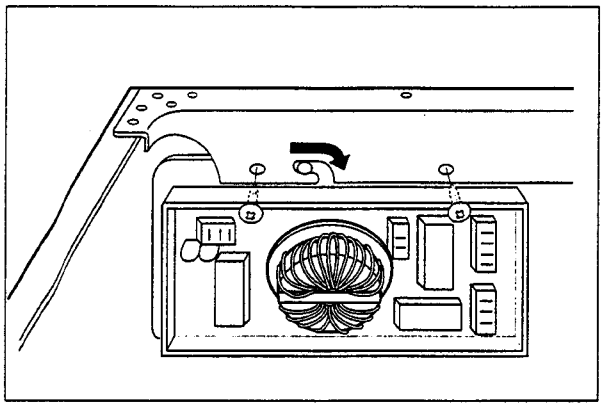


① The PWB assy(Display) connectors are disconnected.
② Pull out drawer, three screws are unscrewed.
③ Push three upper hooks and pull the control panel forward.



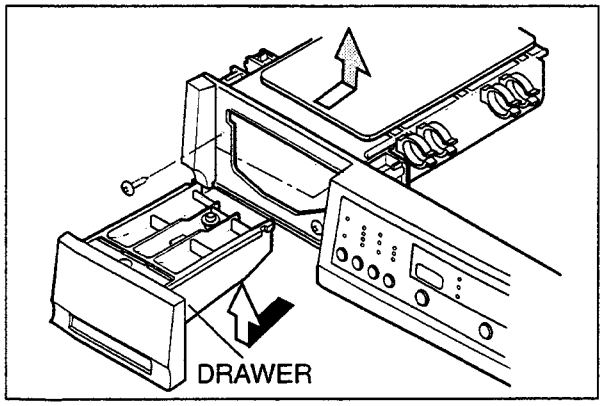
① The PWB assy(Display) is disconnected.
② When 9 screws are unscrewed on the PWB insulator and the PWB assy(Display) is disassembled from the PWB insulator.

PWB ASSY(POWER)

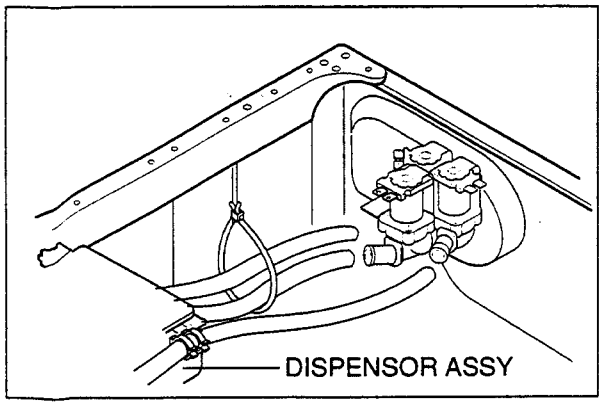


① The plate assy(Top) and the inner cover are removed.
② Two screws are unscrewed.
③ Disconnect connector from the wiring.

DISPENSER ASSY

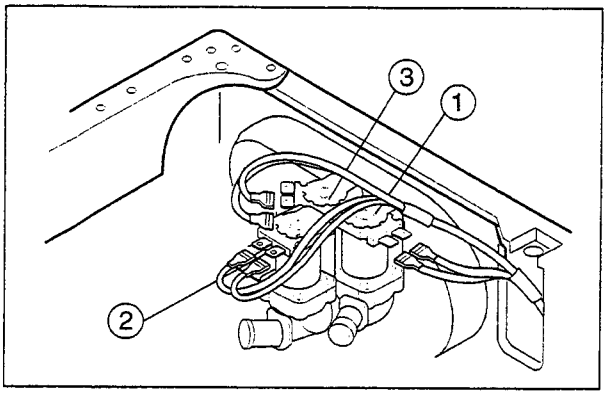


① The plate assy(Top)and the cover(Inner) are disassembled.
② Pull the drawer to arrow direction.
③ Two screws are unscrewed.



① The hose clamps(5EA) and the hose are disassembled.
② The ventilation bellows and the water inlet bellows are disassembled on the tub.

INLET VALVE

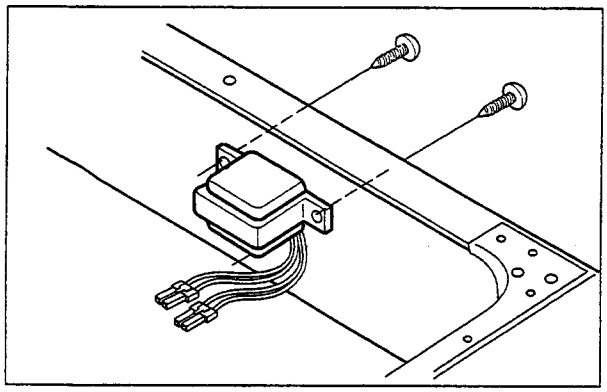


① Disconnect the wiring connector.
② Remove the valve by two screws of the valve holder.

* When reconnecting the connector

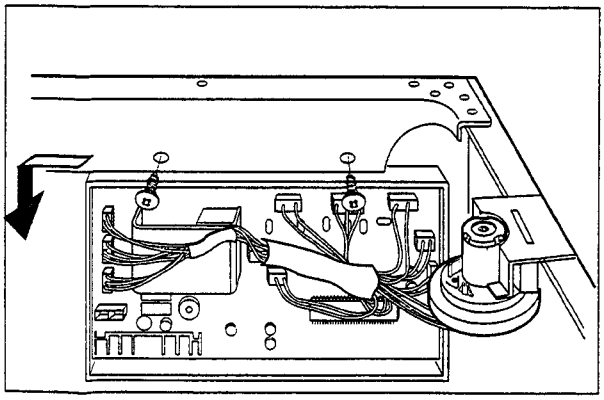
VALVE#1(SHOWER)	Black/Yellow - Black
VALVE#2(WASH)	Blue/Red,White/Black-Black
VALVE#3(PREWASH)	Gray/White - Black

TRANSFORMER, CONTROLLER



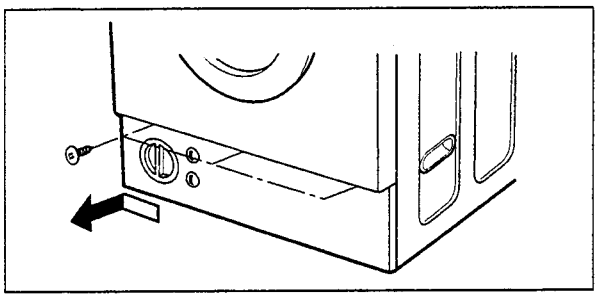
① Two screws are unscrewed.
② Disconnect the wiring connector from the PWB assy(Main).

PWB ASSY(MAIN)

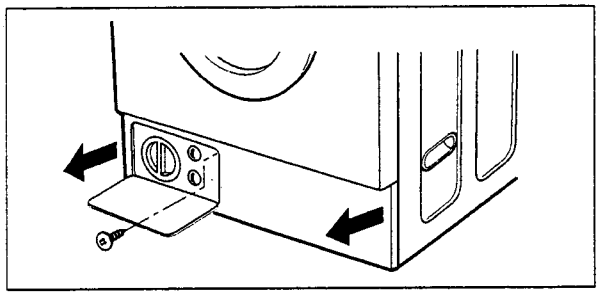


① Two screws are unscrewed.
② Pull the PWB assy(Main) to arrow direction.

LOWER COVER

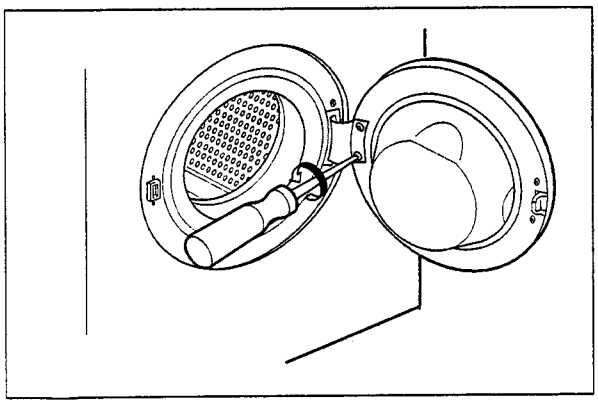


■ Remove the lower cover to arrow direction after three screws are unscrewed. **(WD-1020W/1040W)**



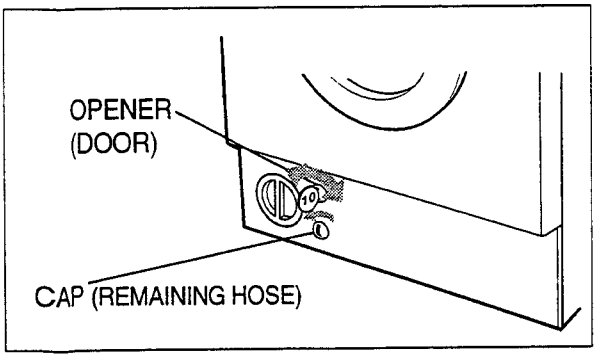
■ Open the lower cover cap by using coin and remove the lower cover to arrow direction after screw is unscrewed. **(WD-1021W/1041W)**

DOOR



※ When the power cord is plugged, the door can be opened by pushing the[DOOR OPEN] button

① Open the door completely.
② Remove the two screws from the hinge.



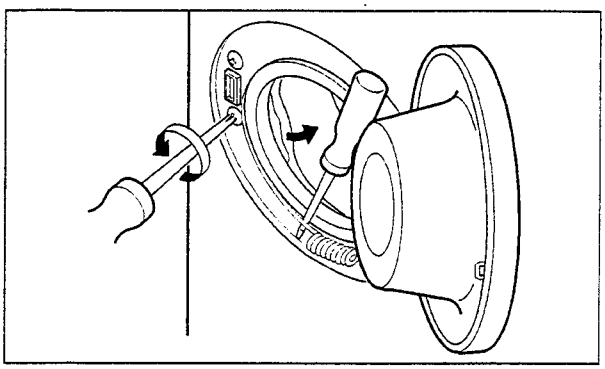
Door opening method in case of no electricity

① Rotate the door opener counterclockwise, by a coin.

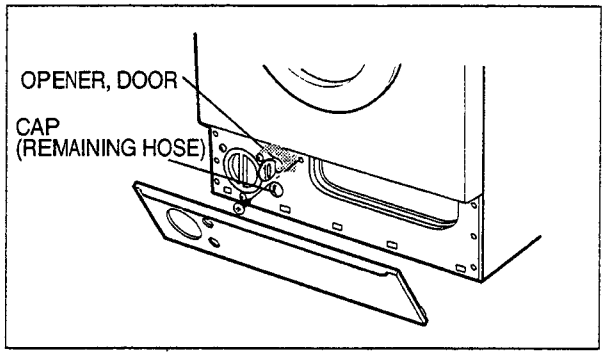
Removing method of remained water

① Rotate the remaining hose cap to arrow direction.
② Pull it out from hose.
※ First, prepare a bucket to put in the remained water

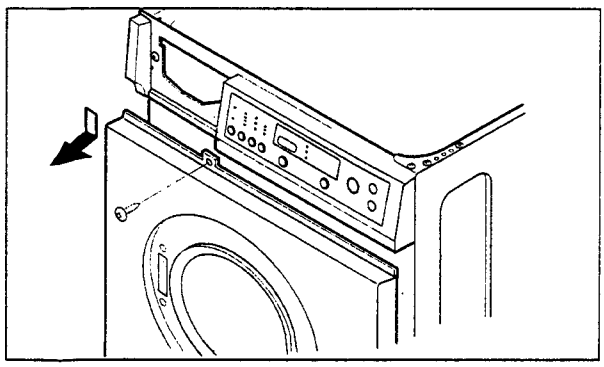
GASKET ASSY



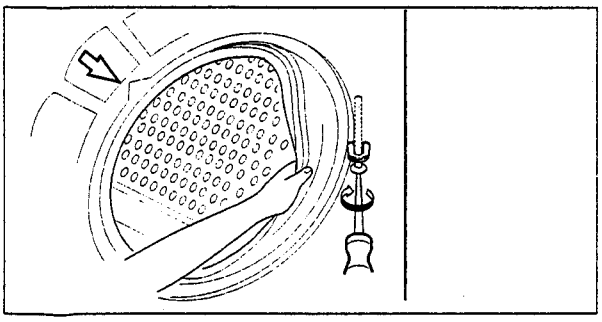
① The cabinet gasket clamp is released.
② Two screws are unscrewed from the cabinet cover.



① Screws are unscrewed from the lower cover.
② The lower cover is disassembled.

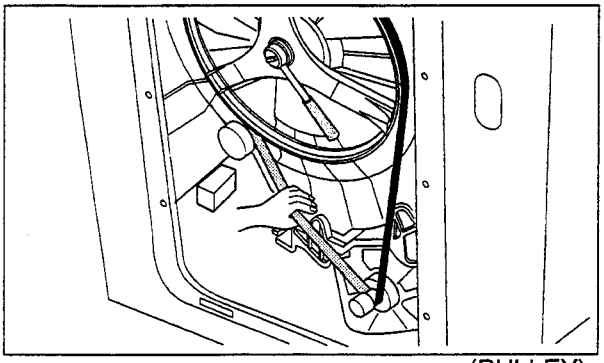


① The control panel is removed.
② Screw is unscrewed from the cabinet cover.



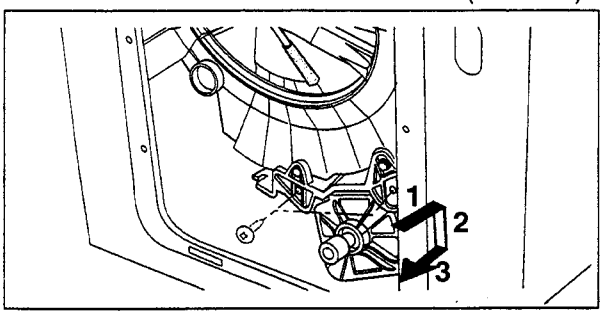
① Release the tub gasket clamp by loosening the screw.

PULLEY, MOTOR, DAMPER



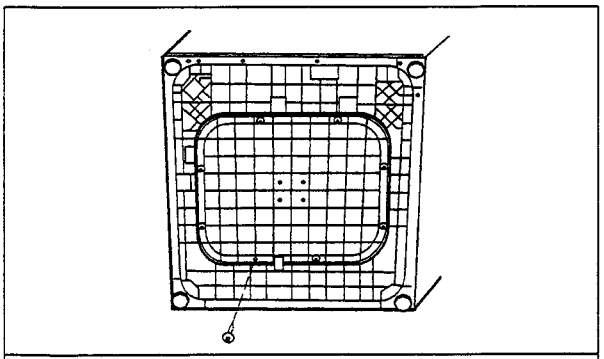
(PULLEY)

① The back cover is removed.
② The belt is pulled off while turning over the pulley.
③ The bolt is unscrewed to the shaft and then the pulley pulled off.

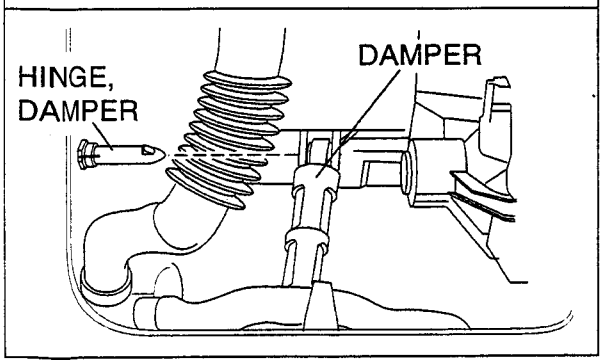


(MOTOR)

① Two screws are unscrewed from the bracket(Motor).
② The motor is pushed to arrow direction and then it is disassembled.
(When mounting the rubber should be fit the bracket holder<motor>)



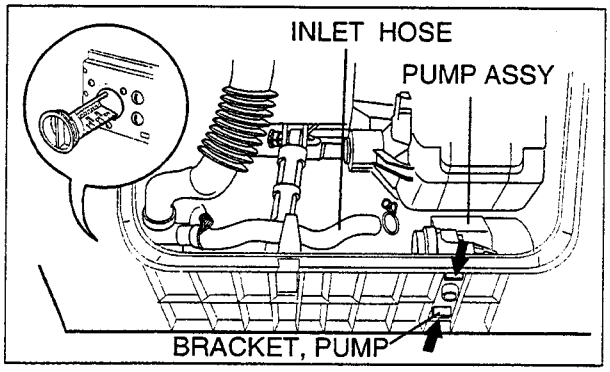
① Lay the washing machine.
② Six screws are unscrewed.



(DAMPER)

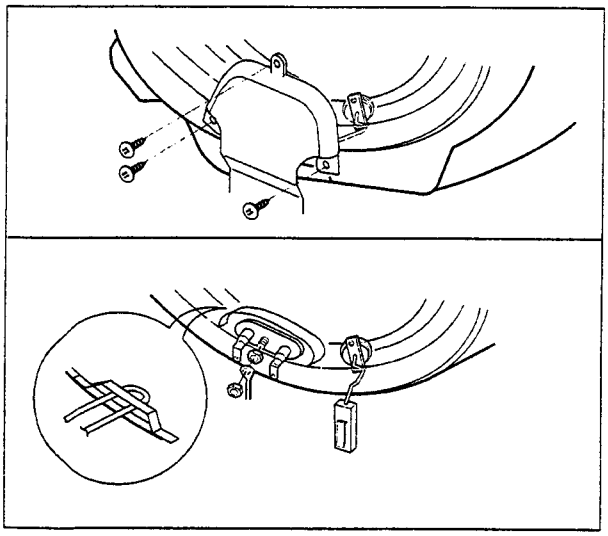
① The hinge(Damper) at the tub is pulled off pressing on the snaps at the sharp end.
② The hinge at the base is pulled off.

PUMP



① The cover(Silent) is removed .
② The pump terminals are disconnected, the hose is pulled off.
③ The pump bracket hook is disassembled to arrow direction.

HEATER

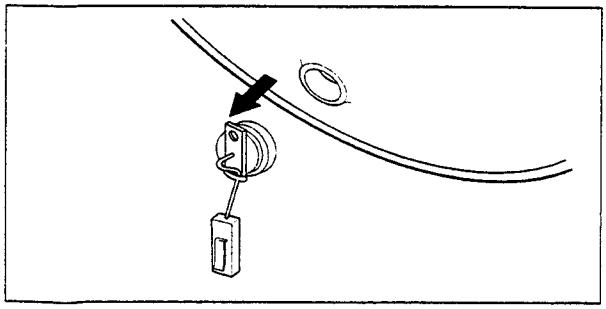


① Three screws are unscrewed.
② The heater M6 bolt is loosened and it is released through the tub cover.

CAUTION

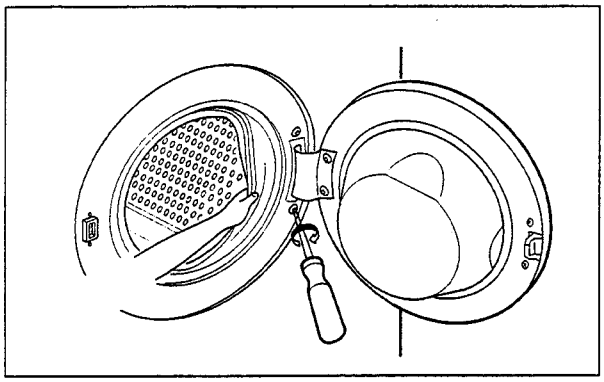
When mounting the heater, the heater should be inserted the heater clip on the bottom of the tub.

THERMISTOR



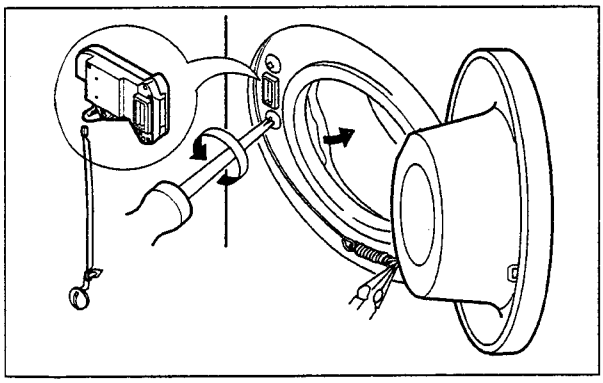
① Pull it out by holding the thermistor bracket.
* If holding the wire and pulling out it, it may be broken.
* The thermistor should be checked it is pulled to the rubber tightly.

DOOR HINGE ASSY



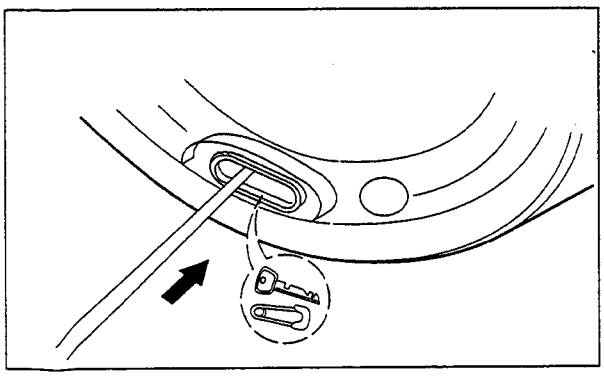
① Two screw are unscrewed on the door and the door is disassembled.
② The cabinet cover clamp is removed and the gasket is released.
③ Two screws are unscrewed on the door hinge.
④ The door hinge is disassembled by pushing the door hinge arm inside the cabinet cover.

SWITCH ASSY, DOOR LOCK



① The cabinet cover clamp is removed and the gasket is released.
② Two screws are unscrewed.
③ The Door Lock S/W is disconnected from the wiring connector and the strap.

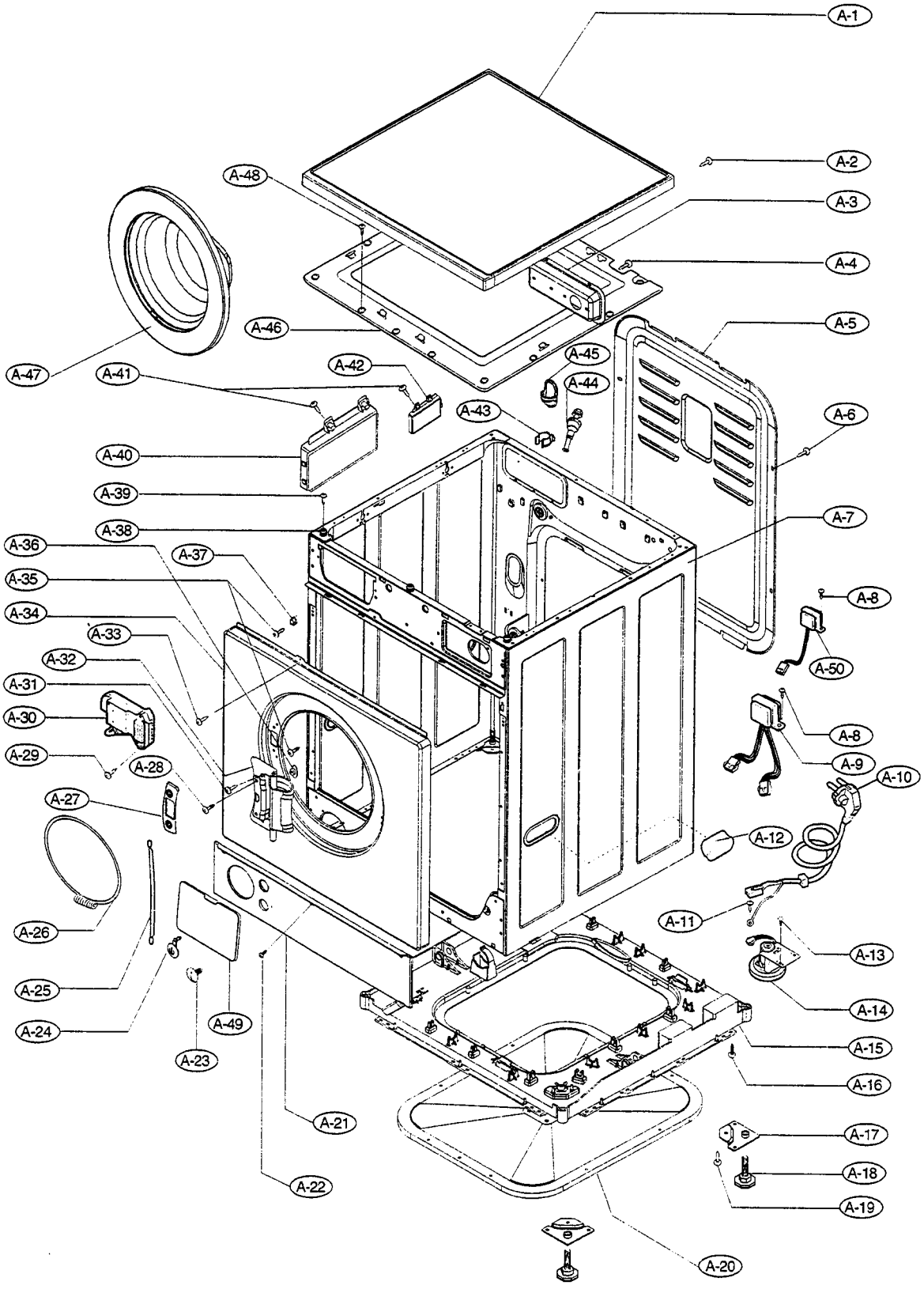
WHEN FOREIGN MATERIAL STACK BETWEEN DRUM AND TUB



① The heater is removed.
② The foreign material(wire, coin, etc) is removed by inserting the long bar in the hole.

10. EXPLODED VIEW AND PART LIST

10-1.THE PART LIST OF CABINET ASSY

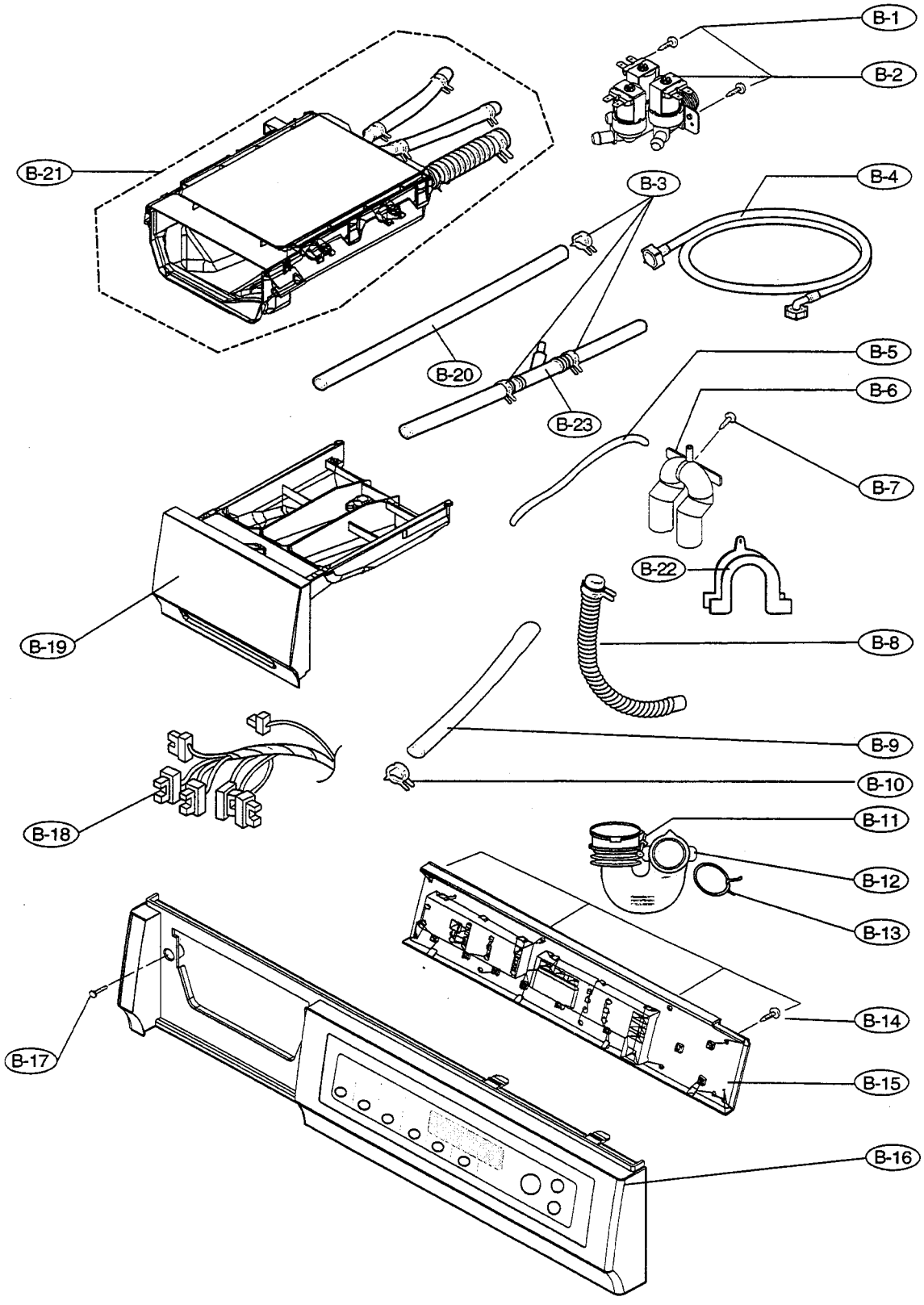


■ THE PART LIST OF CABINET ASSY

L/No.	PART NAME		PART NO.	SVC CORD	Q' TY	SPEC
A-1	PLATE ASSY(TOP)		3301FR1229B	R	1	
A-2	SCREW, TAP TITE(S)[BINDING HEAD]		1SBF0402418			
A-3	HOLDER, VALVE		4930FR3154B		1	
A-4	SCREW. TAPPING[TURSS HEAD]		1TTL0402432		2	
A-5	BACK COVER		3808FR1202A		1	
A-6	SCREW, TAP TITE(S)[BINDING HEAD]		1SBF0402418		4	
A-7	CABINET ASSY		3901FR0045A		1	
A-8	SCREW, TAP TIE(S)[BINDING HEAD]		1SBF0402418			
A-9	TRANSFORMER, CONTROLLER		6170FR2027E	R	1	220-240VAC
A-10	POWER CORD ASSY		6411FR1169B	R	1	C-4-2
	*See Appendix(type of power cord)		6411FR1169D	R	1	S-2-1
			6411FR1169E	R	1	B-5
			6411FR1169F	R	1	B-3
			6411FR1169K	R	1	B-3(BSI)
			6411FR1169L	R	1	B-3(SISIR)
			6411FR1169N	R	1	C-4-2
A-11	SCREW		4000W4A003A		1	
A-12	HANDLE		3650FA3488J		4	
A-13	SCREW, TAP TITE(S)[BINDING HEAD]		1SBF0402418	R	1	
A-14	SENSOR PRESSURE	WD-1020W/1040W	6600FR1203A	R	1	
		WD-1021W/1041W	6600FR1203D	R	1	
A-15	BASE		3040FR0049A		1	
A-16	SCREW, TAP TITE(B)[FLAT HEAD]		1SBF0402618		13	
A-17	BRACKET, BASE		4810FR4136A	R	4	
A-18	FEET ASSY		5413FR4154A		4	
A-19	SCREW. TAP[TITE(B)[FLAT HEAD]		1SBF0402618		8	
A-20	COVER, SILENT		3550FR1151A	R	1	
A-21	COVER, LOWER	WD-1020W/1040W	3550FR1212A	R	1	
		WD-1021W/1041W	3550FR1166A		1	
A-22	SCREW, TAP TITE(B)[FLAT HEAD]		1SBF0402618		4	

L/No.	PART NAME		PART NO.	SVC CORD	Q' TY	SPEC
A-23	CAP(REMAINING HOSE)		5006FR3146A		1	
A-24	OPENER, DOOR		5870FR3147A		1	
A-25	STRAP		4640FR4118A	R	1	
A-26	CLAMP ASSY, CABINET GASKET		2W20017A	R	1	
A-27	GUIDE		4974FR4145A		1	
A-28	SCREW		4000FD4191A		2	
A-29	SCREW, TAPPING[TRUSS HEAD]		1TTL0403032	R	2	
A-30	SWITCH ASSY, DOOR LOCK	WD-1020W/1040W WD-1021W/1041W (AUSTRALIA)	6601FR1119C	R	1	220-240VAC
		WD-1021W/1041W	6601FR1262A	R	1	220-240VAC
A-31	SCREW		4000FD4191B	R	2	
A-32	HINGE ASSY		4775FR2092A		1	
A-33	SCREW, TAPPING[TRUSS HEAD]		1TTL0403332		1	
A-34	COVER, CABINET		3550FR1213A		1	
A-35	SCREW, TAP TITE(C)[PAN HEAD]		11SCPF040268		4	
A-36	HOLDER		4930FR4158A		2	
A-37	HOLDER		4930FR4157A	R	2	
A-38	HOLDER		4930FR4165A		3	
A-39	SCREW, TAP TITE(S)[PAN HEAD SPR W]		1SCBF040319	R	3	
A-40	PWB ASSY(MAIN)	WD-1020W/1040W	6871FC1156A	R	1	220-240VAC
		WD-1021W/1041W	6871FC1156	R	1	220-240VAC
A-41	SCREW, TAPPING[TRUSS HEAD]		1TTL0403018	R	4	
A-42	PWB ASSY (POWER)		6871FC2262		1	220-240VAC
A-43	HOLDER		4930FR3151A		1	
A-44	BOLT ASSY, TRANSIT		4011FR3159A		4	
A-45	BUSHING		4830FR3107A		1	
A-46	COVER, INNER		3550FR2071A	R	1	
A-47	DOOR ASSY		3581FR1200A		1	
A-48	SCREW, TAP TITE(S)[BINDING HEAD]		1SBF0402418		9	
A-49	LOWER COVER CAP	WD-1021W/1041W	5006FR317A	R	1	
A-50	REACTOR	WD-1021W/1041W	5874FA2381A	R	1	SEMKO

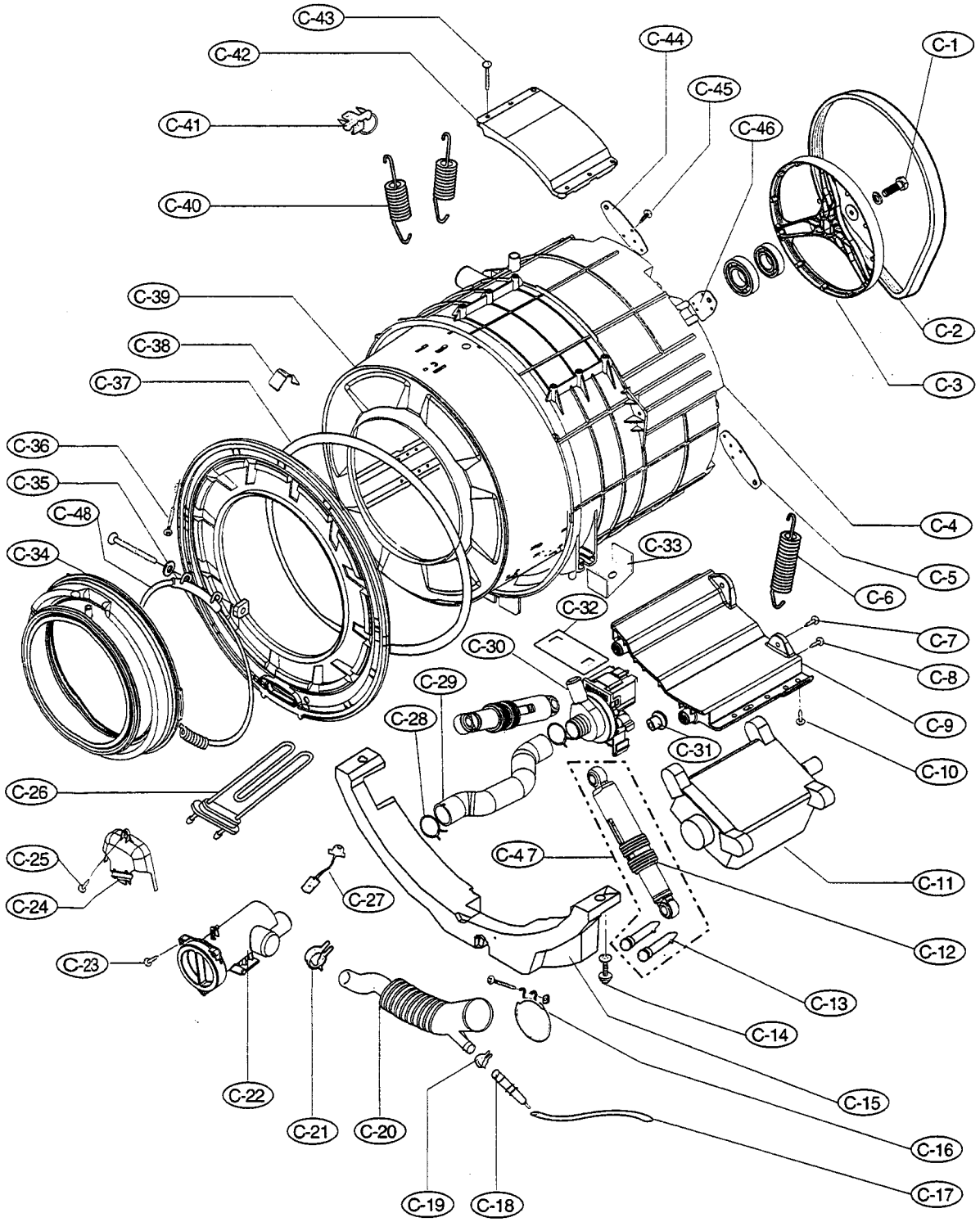
10-2 THE EXPLODED VIEW OF CONTROL PANEL & DISPENSER ASSY



■ THE PARTS LIST OF CONTROL PANEL & DISPENSER ASSY

L/No.	PART NAME		PART NO.	SVC CORD	Q'TY	SPEC
B-1	SCREW, MACHINE[PAN HEAD]		1MPC0402432		2	
B-2	VALVE	WD-1020W/1040W	5220FR2009D	R	1	220-240VAC
		WD-1021W/1041W	5220FR2075A	R	1	220-240VAC
B-3	RING, SNAP		4861FR3068P			
B-4	HOSE ASSY, INLET		5214FA1146	R	1	
			5215FD3715	R	1	
B-5	HOSE		5214FR4125B		1	
B-6	CONNECTOR (MECH), DRAIN HOSE		4932FR3156A	R	1	
B-7	SCREW, TAP TITE(B)[FLAT HEAD]		1SBF0402618		1	
B-8	HOSE ASSY, DRAIN		5214FR3018B	R	1	
B-9	HOSE, PUMP		5214FR2090A	R	1	
B-10	RING, SNAP		4350FA3272E		2	
B-11	CLAMP		4860FR3092D		1	
B-12	BELLOWS		4738FR2065A	R	1	
B-13	RING, SNAP		3W50012O	R	1	
B-14	SCREW		4W51132A		9	
B-15	PWB ASSY(DISPLAY)		6871FC2272A	R	1	
B-16	PANEL ASSY, CONTROL	WD-1020W/1021W	3721FR1227	R	1	
		WD-1040W/1041W	3721FR1196	R	1	
B-17	SCREW, TAPPING[TRUSS HEAD]		1TTL0403332			
B-18	LEAD WIRE ASSY		6877FR1195	R	1	
B-19	PANEL ASSY, DRAWER	WD-1020W/1021W	3721FR1228	R	1	
		WD-1040W/1041W	3721FR1244	R	1	
B-20	HOSE	WD-1020W/1040W	5214FR4125	R		
B-21	DISPENSER ASSY	WD-1020W/1040W	4925FR1137B	R	1	
		WD-1021W/1041W	4925FR1137D	R	1	
B-22	DRAIN HOSE HANGER	WD-1021W/1041W	3W50712A	R	1	
B-23	HOSE ASM(SHOWER)	WD-1021W/1041W	5215FR3197A	R	1	

10-3 THE EXPLODED VIEW OF DRUM & TUB ASSY

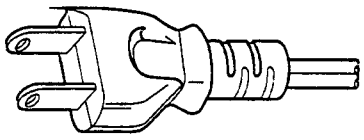
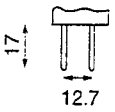
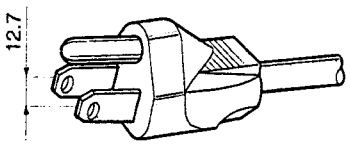
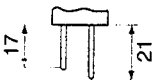
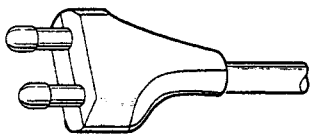
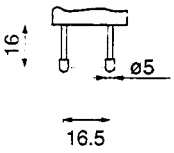
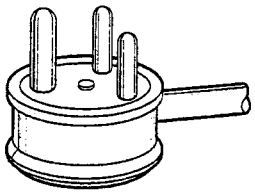
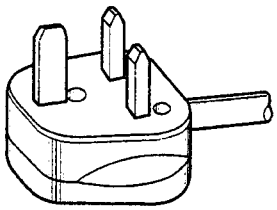
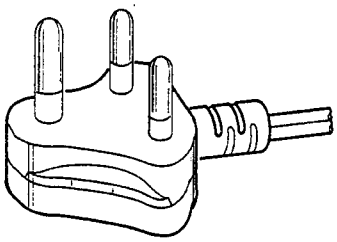
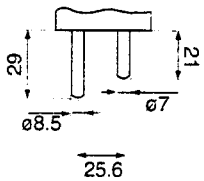
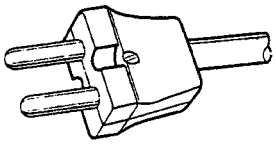
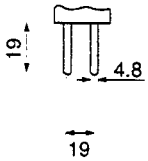


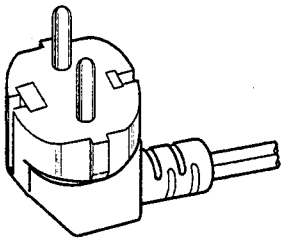
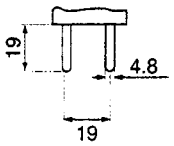
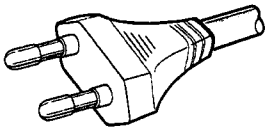
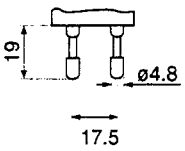
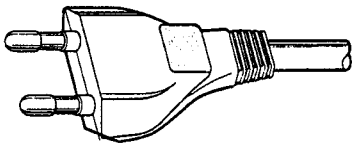
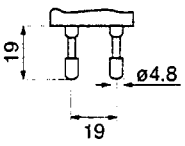
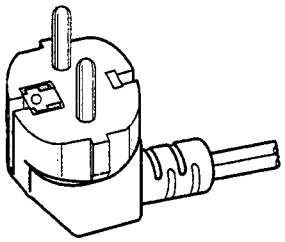
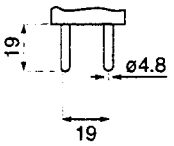
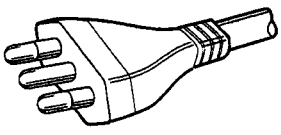
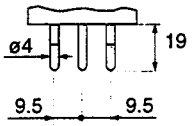
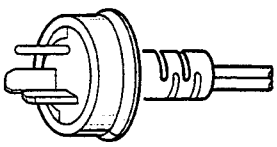
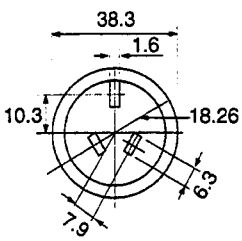
■ THE PART LIST OF DRUM & TUB ASSY

L/No.	PART NAME		PART NO.	SVC CORD	Q' TY	SPEC
C-1	BOLT ASSY		4011FR3173A		1	
C-2	BELT, POLY-V		4400FR3116A	R	1	
C-3	PULLEY		4560FR1149A	R	1	
C-4	TUB ASSY		3045FR0031A		1	
C-5	BRACKET		4810FR4167B		1	
C-6	SPRING		4970FR2084B	R	1	
C-7	SCREW		1TTL0503518		2	
C-8	SCREW		1SZZFR4174A		2	
C-9	BRACKET, MOTOR		4810FR1222		1	
C-10	SCREW		4000FA3115B		4	
C-11	MOTOR ASSY		4681FR1194A	R	1	220-240VDC
C-12	DAMPER ASSY		4901FR2080A		2	
C-13	HINGE		4774FR3118A		4	
C-14	BOLT ASSY		4011FR3173B		3	
C-15	WEIGHT, BALANCE		4844FR1179A		1	
C-16	CLAMP		4860FR3092C		1	
C-17	HOSE(SENSOR)		5214FR4125A	R	1	
C-18	CHAMBER, AIR		3504FR3134A	R	1	
C-19	CLAMP, HOSE		4861FR3068C		1	
C-20	BELLOWS		4738FR1145A	R	1	
C-21	CLAMP, HOSE		4861FR3068E		1	
C-22	HOUSING ASSY (MECH), PUMP		3661FR2078A	R	1	
C-23	SCREW, TAPPING [TURSS HEAD]		1TTL0403018		3	
C-24	PROTECTOR (MECH)		3740FR3043A		1	
C-25	SCREW, TAPPING [TURSS HEAD]		1TTL0403318		2	
C-26	HEATER ASSY	WD-1020W/1040W	5301FR1158A	R	1	220VAC2500W
		WD-1021W	5301FR1158B	R	1	240VAC2000W
		WD-1041W	5301FR1158C	R	1	220VAC2000W
			5301FR1158D	R	1	230VAC2000W

L/No.	PART NAME		PART NO.	SVC CORD	Q' TY	SPEC
C-27	THERMISTOR		6322FR2046B	R	1	
C-28	CLAMP, HOSE		4861FR3068C		2	
C-29	INLET HOSE		5214FR3135A	R	1	
C-30	PUMP ASSY		5859FR2077B	R	1	220-240VAC 50Hz
		WD-1021W/1041W	5859FR2077C	R	1	Australia
C-31	RUBBER		5040FR4168A	R	4	
C-32	PROTECT FILM, PUMP	WD-1020W/1040W	5135FR4151B		1	
		WD-1021W/1041W	5859FR4151A		1	
C-33	BRACKET		4810FR4116A		3	
C-34	GASKET ASSY		4987FR1165A	R	1	
C-35	COVER, TUB		3044FR0027A		1	
C-36	SCREW, TAPPING [TURSS HEAD]		1TTL0403318		3	
C-37	SEAL		4036FR4123A		1	
C-38	CLAMP, TUB		4860FR4124A		11	
C-39	TUB, DRUM ASSY		3044FR1220A	R	1	
C-40	SPRING		4970FR2084A	R	2	
C-41	HOLDER(SPRING)		4930FR3040A	R	3	
C-42	WEIGHT, BALANCE		4844FR1223A		1	
C-43	SCREW		4000FA3115B		6	
C-44	BRACKET		4810FR4166B		1	
C-45	SCREW		1TTL0503518		12	
C-46	BRACKET		4810FR4126B		2	
C-47	DAMPER ASSY		4901FR3139A	R	2	
C-48	TUB GASKET CLAMP ASSY		4861FR2086A	R	1	

■ APPENDIX(The type of power cord)

TYPE	TYPE OF PLUG	POWER CORD P/No.
A-1	 	-
A-2	 	-
B-1	 	-
B-2		2A 2PIN 3.5Ø EPIN 5Ø 5A 2PIN 5Ø EPIN 7Ø 15A 2PIN 7Ø EPIN 8.6Ø	-
B-3		6411FR1169F
B-5	 	6411FR1169E
C-1	 	-

TYPE	TYPE OF PLUG	POWER CORD P/No.
C-2-1		-
C-2-2	 	6411FD1096V
C-3-1	 	-
C-3-2	 	-
C-4-2	 	6411FR1169B
C-5	 	-
S-2-1	 	6411FR1169D